

Claims

1. Hollow-interior vehicle door consisting of an internal in its entirety essentially pot-shaped or pan-shaped stiffening structure, and of at least one external outer panel element being essentially lid-shaped and supported by the essentially pot-shaped or pan-shaped stiffening structure, such as a door skin, as well as of functional parts for practicing the door functions, and of optionally an inner panel element, in which the essentially pot-shaped or pan-shaped stiffening structure
- 5
- a) serves to accommodate functional parts of the vehicle door, such as a hinge, hinge plate or similar moving element and/or a closure element, window lift, loudspeaker or other parts and
- 10
- b) has an access opening, such as a service opening into the door interior defined by one or more outer panel elements and the essentially pot-shaped or pan-shaped stiffening structure,
- 15
- characterized in that,
- c) the essentially pot-shaped or pan-shaped stiffening structure is divided into two parts, in fact,
- 20
- d) into a first frame-shaped stiffening element (12) for supporting the outer panel element (outer panel 10) and
- e) into a second essentially pot-shaped or pan-shaped stiffening element (14) for supporting functional parts of the vehicle door (1) and that
- 25
- f) the two stiffening elements (12 and 14) have, in the area of the outward-pointing, thus in Y-direction pointing, side walls of the door interior

14

(1A), elongated, preferably frame-shaped connecting surfaces (18 and 18') which define the access opening (1B) to the door interior (1A).

- 5 2. Vehicle door according to Claim 1, characterized in that the second stiffening element (14) of the stiffening structure also has a window frame (14B), apart from the essentially pot-shaped or pan-shaped area (14A).
- 10 3. Vehicle door according to Claim 1 or 2, characterized in that the connecting surface of the second stiffening element (14) to the first stiffening element (12), is arranged outward-pointing and, in the manner of a flange on the door-outwards end of the lateral, outward-pointing side wall (14A'') of the second stiffening element (14).
- 15 4. Vehicle door according to Claim 3, characterized in that the first stiffening element (12) has flange-like and inward-pointing connecting surfaces (18') corresponding to the second stiffening element (14).
- 20 5. Vehicle door according to one of Claims 1-4, characterized in that a elongated profiled seal (32) for sealing off the vehicle door (1) with respect to the vehicle chassis (2) is arranged on the door side in the joint area between the two stiffening structure parts (first stiffening element 12 and second stiffening element 14).
- 25 6. Vehicle door according to Claim 5, characterized in that the elongated profiled seal (32) covers and preferably also seals off the joint site between the two stiffening structure parts.
- 30 7. Vehicle door according to Claim 5 or 6, characterized in that connecting bolts (28) for the two stiffening structure parts have a bolt head (28A) that, in addition to driving flats (28A') for a spanner, also has clamping

surfaces (28A") for the clamped accommodation of an elongated profiled seal (32).

- 5 8. Vehicle door according to one of Claims 1-7, characterized in that a lock compartment wall (22A) is provided on one of the two stiffening structure parts such that, when the two stiffening structure parts are joined, the free wall end is supported in a sealing manner against a respective other stiffening structure part, forming an encapsulation of the door lock (22).
- 10